

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (Canceled).

Claim 2. (Previously Presented) A vector which comprises at least one nucleic acid of Claim 35.

Claim 3. (Previously Presented) The vector of Claim 2, wherein the nucleic acid is functionally linked to regulatory sequences which ensure expression of the nucleic acid in a prokaryotic cell or a eukaryotic cell.

Claim 4. (Previously Presented) A host cell which contains a nucleic acid of Claim 35.

Claim 5. (Previously Presented) The host cell of Claim 4, wherein said host cell is a prokaryotic cell or a eukaryotic cell.

Claim 6. (Previously Presented) The host cell of Claim 5, wherein the prokaryotic cell is E.coli.

Claim 7. (Previously Presented) The host cell of Claim 5, wherein the eukaryotic cell is a mammalian cell or an insect cell.

Claims 8-9 (Canceled).

Claim 10. (Previously Presented) A process for preparing a polypeptide encoded by a nucleic acid of Claim 35 comprising

- (a) culturing a prokaryotic cell or a eukaryotic cell in a culture medium, said prokaryotic cell or said eukaryotic cell comprising a vector comprising at least one nucleic acid of Claim 35, wherein the nucleic acid is functionally linked to regulatory sequences which ensure expression of the nucleic acid in the prokaryotic cell or the eukaryotic cell and wherein culture conditions allow expression of a polypeptide or polypeptides encoded by the nucleic acid, and
- (b) isolating the encoded polypeptide or polypeptides from the prokaryotic cell or the eukaryotic cell and/or optionally where the encoded polypeptide or polypeptides are secreted in the culture medium, isolating the polypeptide or polypeptides from the culture medium.

Claims 11-23 (Cancelled).

Claim 24. (Currently Amended) A host cell containing ~~a vector~~ the vector according to Claim 2.

Claim 25. (Currently Amended) A host cell containing ~~a vector~~ the vector according to Claim 3.

Claim 26. (Previously Presented) The host cell of Claim 24 wherein said host cell is a prokaryotic cell or a eukaryotic cell.

Claim 27. (Previously Presented) The host cell of Claim 25 wherein said host cell is a prokaryotic cell or a eukaryotic cell.

Claim 28. (Previously Presented) The host cell of Claim 26 wherein said host cell is an E. coli cell.

Claim 29. (Previously Presented) The host cell of Claim 27 wherein said host cell is an E. coli cell.

Claim 30. (Previously Presented) The host cell of Claim 26 wherein said host cell is a mammalian cell or an insect cell.

Claim 31. (Previously Presented) The host cell of Claim 27 wherein said host cell is a mammalian cell or an insect cell.

Claims 32-33 (Canceled).

Claim 34 (Canceled).

Claim 35. (Currently Amended) An isolated nucleic acid comprising a sequence selected from

- (a) a sequence ~~according to~~ comprising nucleotide No. 372 to nucleotide No. 2681 of SEQ ID NO: 1, nucleotide No. 335 to nucleotide No. 1822 of SEQ ID NO: 3 or nucleotide No. 95 to nucleotide No. 1597 of SEQ ID NO: 5,
- (b) ~~a sequence complementary to the sequences defined under (a)~~ a sequence complementary to the entire length of one of the sequences defined under (a), and
- (c) a sequence which, due to degeneracy of the genetic code, encodes the same amino acid sequences as those encoded by the sequences defined under (a),

wherein nucleotides 372-2681 of SEQ ID NO:1, nucleotides 335-1822 of SEQ ID NO:3, and nucleotides 95-1597 of SEQ ID NO: 5 encode an acetylcholine receptor subunit having the ability to form homooligomeric acetylcholine receptors when expressed in a host cell.

Claim 36. (Canceled).